



Completing the Bay Mercury TMDL

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Today's Agenda

- Review project status and Water Board response to State Board resolution
- Present proposed TMDL revisions and other actions underway
- Discussion/questions & answer session
- CEQA Scoping Meeting

Mercury threatens beneficial uses of San Francisco Bay

- Sport Fishing
 - Fish tissue contamination
- Wildlife Habitat
 - Bird egg hatching failures
- Rare and Endangered Species
 - California least tern
 - California Clapper rail



striped bass



California least tern³

Mercury TMDL Project History

- Ongoing since 1998, many public forums
- Basin Plan Amendment and TMDL adopted by SF Bay Water Board, 09/04
- Considered by State Board, remanded to Water Board for revisions, 09/05

Timeline and Next Steps

- Release documents for public review mid-March
- Public review period through April
- Water Board action in June

Overview of Water Board Response

- More Stringent Requirements for Wastewater
- New Water Quality Objectives
- Actions to clarify and improve implementation

Previous Mercury Allocations

SOURCE CATEGORY	ALLOCATION (kg/yr)
Bed Erosion	220
Central Valley Watershed	330
Urban Runoff	82
Guadalupe River Mining Legacy	2
Atmospheric Deposition	27
Rural Runoff	25
Wastewater	20
Dredging and Disposal	0 ≤ ambient concentration
TOTAL	706

Revisions to the Basin Plan Amendment

State Board Wastewater Concerns

- Allocations must reflect effective pollution prevention (P2)

Water Board response:



Previous Wastewater Pollution Prevention Language

“Develop and implement effective programs to control mercury sources and loading....”

P2 Water Board Response

- Basin Plan will require wastewater dischargers to implement P2 measures
- Expected benefit:
20% load reduction

State Board Wastewater Concerns

- Allocations must reflect effective treatment
- Revise TMDL to include individual wasteload allocations



Revised Wastewater Allocations

Current allocations
(kg/year)

Revised
allocations

Municipal advanced	17	-20%	11?
Municipal secondary		-40%	
Industrial	3	?	Analysis pending
Total	20	14?	

More Stringent Requirements for Wastewater

- Previously:
Exceeding performance-based mass
AND concentration triggers requires
response action
- Proposed:
Exceeding performance-based mass
OR concentration triggers requires
response action

Monitoring for Methylmercury

State Board:

- **Revise TMDL to require wastewater dischargers to monitor methylmercury in effluent**

Water Board response:

- **Clarify requirement in Basin Plan**
- ✓ **Act now: 13267 letter**

Pollutant Trading Program

Under development by State Board

- Include re-opener for offsets in TMDL and NPDES permits

Water Board response: 

New Water Quality Objectives

- Vacate 0.025 ug/L WQO
- Propose two new fish tissue objectives:
0.2 ppm larger fish
0.03 ppm smaller prey fish

Wildlife Target & WQO

Existing

- <0.5 ppm mercury in bird eggs
- Alternative: 0.03 ppm in prey fish < 5 cm



Proposal:

- Clarify that bird-egg target is a monitoring target
- Establish prey fish target = new objective

Other Actions

Dredging

State Board:

- Disposal of Hg-laden material must comply with the Long Term Management Strategy (LTMS)

Water Board Response:

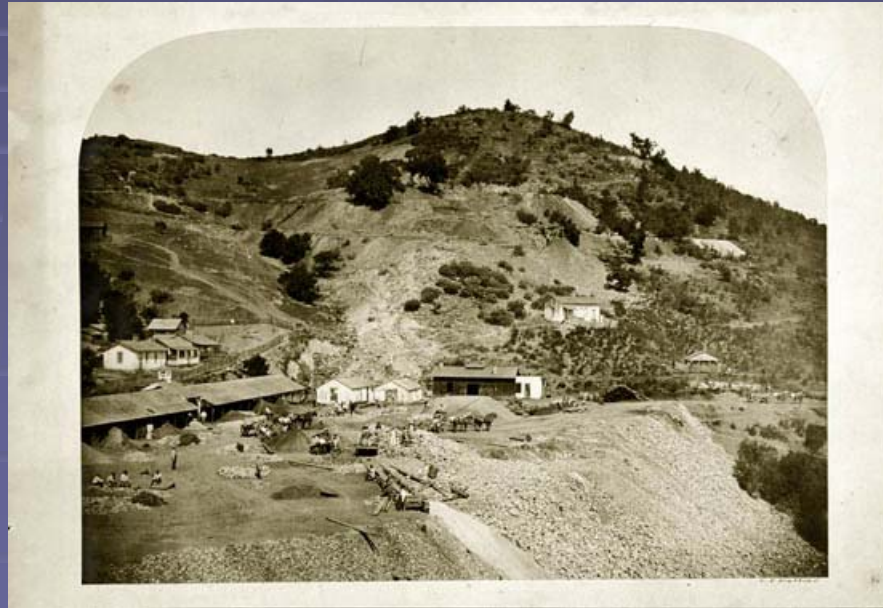
- ✓ Clarify consistency with LTMS



Legacy Mercury Sources: Mines and Bay Margin Hot Spots

State Board:

- SF Bay Water Board to
inventory,
prioritize
legacy
sources



New Almaden Quicksilver Mine, 1863

Legacy Sources: Mines

Water Board Response:

- ✓ Bay mines inventory and prioritization underway
- ✓ New Almaden mine report available (Guadalupe River Watershed Mercury TMDL Project Report)

Legacy Sources: Hot Spots

Water Board Response:

- Evaluate existing efforts to cleanup hot spots
- Revise cleanup priorities if necessary

Public Health Impacts

State Board:

- Investigate ways to reduce subsistence fishers' exposure to mercury
- Mitigate health impacts to people and communities



Public Health Risk Reduction

- Clean Estuary Partnership convening a multidisciplinary panel of experts and community members to I.D. risk reduction strategy



Summary - Wastewater

Changes to Basin Plan:

- Wastewater
 - Require P2
 - Reduce wasteload allocations
 - Add permit re-openers for offsets
 - More stringent requirements:
mass OR concentration triggers
 - Require methylmercury monitoring

Summary – Targets & WQOs

Changes to Basin Plan:

- New fish tissue objectives
0.2 ppm in fish people eat
0.03 ppm in fish wildlife eat

(also target)



Summary: Other Actions

- Clarify dredging compliance with LTMS
- Inventory and prioritize mines and toxic hot spots
- Investigate risk reduction measures

CEQA Scoping Meeting

Environmental Review Process

- **The Basin Planning Process** is an “approved certified program” exempt from preparing the usual CEQA documents.
- We complete an **Environmental Checklist** that accompanies each Basin Plan Amendment.

Today's CEQA Scoping Agenda

- CEQA scoping for the Bay Mercury TMDL and implementation plan is complete.
- This discussion will be limited to:
 - The change in water quality objectives from
 - Mercury in the water column, to
 - Mercury in the tissues of fish eaten by humans and wildlife.
 - Implementation of new WQOs via the TMDL

What Does CEQA require?

- Identification of potentially significant environmental impacts
- Discussion of alternative implementation actions
- Mitigation measures to reduce potential negative impacts
- Evaluation of potential cumulative impacts

Effects to Consider Under CEQA

Will Consider:

- Direct physical changes in the environment
 - Earthwork
 - Construction
 - Waste handling and disposal
- Reasonably foreseeable indirect changes

Will not consider:

- Changes with effects already considered
- Changes that would occur regardless of the new WQOs
- Speculative changes

Environmental Checklist Topics

Aesthetics

Agricultural resources

Air quality

Biological resources

Cultural resources

Geology/soils

Hazards and Hazardous
materials

Hydrology and water quality

Land use/planning

Mineral resources

Noise

Population/housing

Public services

Recreation

Transportation/traffic

Utilities/service delivery
systems

Environmental Checklist Criteria

- Ask questions for each topic, to evaluate
 - Potential significant impacts
 - Less than significant impacts with mitigation measures added
 - Less than significant impacts
 - No Impacts

Environmental Checklist Topics

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delivery systems

We Need Your Ideas and Input

- Please give us your comments on:
 - Possible impacts of actions related to the new water quality objectives
 - Suggested mitigation measures
 - Possible cumulative impacts
- Identify issues that you think should be included in the environmental evaluation

We Invite Your Comments!

- To ensure that scoping comments are considered, they must be received at the Water Board by close of business on Friday, February 10, 2006
- Send comments to:

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